



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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In reply refer to:
NBI-PRB

Professor Joshua Lederberg
Department of Genetics
Stanford University School of Medicine
Stanford Medical Center
300 Pasteur Drive
Palo Alto, California

Dear Dr. Lederberg:

With your study on the seasonal fluctuation of human births you are involved in a formidable subject because of the multitude of unknown, half-known, and poorly defined variables hidden in the gross picture. To get our discussion underway, let me just jot down a few questions, all of which, I am sure, you have considered already.

Births: Abortions, stillbirths, prematures amount on the average to more than 25 percent of the conceptions. These types of pregnancy outcome may run different seasonal patterns and may, therefore, produce directly or indirectly a differential effect on the annual distribution of births (directly, by affecting the monthly birth rate; indirectly, by spacing the subsequent conception). In addition, pregnancy losses have a close association with maternal age and parity, race, and the socio-economic-educational status of the parents.

Parity: It is likely that in the parity 1+ group the date of the first birth will have a strong association with the birth dates of sequential births if birth control or pathology does not interfere.

Birth Control: Up to very recently, birth control as a factor in timing or spacing conceptions was not effective, even between American men (and women) of the sciences. This situation is now changing and I am most curiously looking forward to learning if effective birth control will change the seasonal fluctuation of conceptions and births.

Artificial Insemination: The dates of conception and birth after AID in healthy women (male: azoospermia) should be explored for seasonal fluctuations in conception rates. If the American Fertility and Sterility Association were interested, a sizeable annual case sample is available.

Seasonality of marriage complicates the picture by the "stowaways" and their unknown dropout rates. The same applies to illegitimate conceptions.

VOLLMAN

Induction of labor and Cesarean Section today contribute a sizeable number of artificial birth dates and are not evenly distributed over the year (income tax babies, vacation, etc.). I guess that these and other inherent difficulties make the problem of seasonality of births just the more attractive to you.

I am enclosing some reprints as requested.

Sincerely yours,

R F Vollman

Rudolf F. Vollman, M.D.
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Enclosures

*Thank you again for the meeting
in San Francisco. I am looking forward
to future cooperation.* *R.F.V.*